

Claims

1. An electric vehicle including frame (1), seat(2), two front wheels(3), two rear wheels(4), driving device(5), battery, steering system(6) and front wheel suspension device, wherein:

the frame(1) protrudes forward to form a casing (11) for placing battery at the middle position of the front end thereof;

the front wheel suspension device (7) appears front convex and rear concave shape covering the front end of the casing(11), and pivot-joins at the middle position of the front end of the casing(11), the two front wheels (3) are installed on the front wheel suspension device (7);

the steering system (6) is connected to the front end of the frame (1) and interlocks with the front wheel (3).

2. The electric vehicle as described in Claim 1, wherein the rear edge line of the two front wheels(3) is located at the rear of the battery front edge.

3. The electric vehicle as described in Claim 2, wherein two protruding upper/lower connection parts (12) are set at the middle of the front end of the casing(11), two pairs of pivot joint parts (121,122,123,124) at upper/lower with reverse setting are set on the connection parts;

The front wheel suspension device includes a pair of front upper cantalevers(71,72), a pair of front lower cantalevers(73,74) and vibration damper(79); the front end of the front upper & lower cantalever(71,72,73,74) along the axis of the electric vehicle length direction is connected to the pivot joint parts(121,122,123,124); The rear end of the cantalevers extends towards the side rear to the side of the frame casing; the left & front cantalevers(71,73) and right & front cantalevers(72,74) are connected with left & right ball head pins(75,76) at the rear respectively; on the left & right head pins(75,76) are left & right axles(77,78) which are used to fix the left & right front wheels(3); The damper(79) is set near the rear of the cantalever, with one end connected to the frame(1) while the other end connected to the cantalever;

the steering system consists of left & right lateral bars(61,62), steering shaft(63) and steering handle(66); The steering shaft (63) can be set at the front of the frame rotationally and interlocks with said axles(77,78) via lateral bars(61,62) .

5 4. The electric vehicle as described in Claim 3, wherein the front cantalevers at the left (71,73) and front cantalevers at the right(72,74) appears trapezoid and extends to the rear.

10 5. The electric vehicle as described in Claim 4, wherein on the connection parts(12), two pairs of upper/lower pivot joints(121',122',123',124') with reverse setting are set inside the pivot joints(121,122,123,124); the front wheel suspension device(7) has a pair of rear upper cantalevers(71', 72') and a pair of rear lower cantalevers(73', 74'), which are basically parallel to the front edge of frame; one end of the rear cantalevers is pivot-connected to the pivot joint parts(121',122',123',124')
15 while the other end thereof is fixed near the rear end of the front cantalevers(71,72,73,74).

6. The electric vehicle as described in Claim 5, wherein stands for steering shaft installation (64,65) are set on the upper/lower connection parts respectively, which is installed with ball bearings.

20 7. The electric vehicle as described in Claim 6, wherein a forward protruding part (631) is set on the steering shaft (63) between the installation stand(64) and the installation stand(65), which is used for rotation connection of the lateral bar(61, 62).

25 8. The electric vehicle as described in Claim 7, wherein the lateral bars (61,62) are ball head link bars.

9. The electric vehicle as described in Claim 3, wherein the front end of the upper/lower connection parts(12) is fixed and supported with I steel.

10. The electric vehicle as described in Claim 5, wherein the casing (11) has a concave cavity (13) downwards for placing the battery.

30